

Modernization and Technology

Situation Overview:

A. *Detail the farm's reasoning behind the decision to pursue a modernization plan.* For our family farm, labor was the big issue that drove us to explore modernization. In our town, high school graduation is at 6:30 p.m. I always said I wanted to make it to our four kids' graduation, and in our current system, that would have been a difficult goal to meet. We wanted flexibility, freedom and quality of life.

With a modernization plan, we wanted a full-time hired employee. We had been able to make our farm work with high school kids, but we never had a complete comfort level with them.

B. *List the key variables that impacted the decision to move ahead with the plan.* Our Transformation Team walked through decisions with us. We explored robotics and the associated debt and equity load. Once we accepted that a parlor and free stall was the best fit for us, they also walked through those decisions and choices with us. They also helped us look at exit strategies. We knew we needed to be progressive and better positioned for the future or, we needed to be out of the business.

C. *The farm was modernized in the following areas during this project:*

- Young Stock Facilities – We retrofitted our machinery shed to group housing for calves, with an acidified milk feeding system. It modernized our calf production that was previously 10 calf hutches.
- Milking Cow Facilities – Double 8, fast exit parlor. With a touch of button, all the cows exit.
- Manure Management & Storage –Earthen lagoon, emptied twice per year in the spring and the fall. A lot of rain could impact surface area, but the expectation is that it should be fine.
- Manure Handling – Automatic scrapers that run on a timer.
- Feed Storage – No change, but added more ag bags and old silos.
- Bedding – Sawdust for free stall barn.
- Ventilation –Side wall curtains, and fans down the middle of the barn.
- Other – Existing tie stall barn is now the dry cow facility. Fresh cows and treated cows are milked in that barn too.



Modernization and Technology...continued

Challenges and Opportunities:

D. *What were the different options the Transformation Team considered as they worked together to pursue this plan? Please describe.* We considered robotics and a conventional free stall with a parlor. Ultimately, we chose the conventional free stall barn, and our Transformation Team advisors had the knowledge of what we needed to do next, to keep the plan moving forward. We had invested a lot of time and research into robotics, and were more familiar with our choices, as compared to a parlor and free stall barn. Our Transformation Team helped us switch gears and make decisions.

Our team met throughout the building phase of the free stall barn. One example of their input was they knew we needed a “cross over” alley for our number of cows. With that guidance, we were able to talk to our builder and make that change. We tapped into the team’s experience and knowledge.

When planning the parlor, we knew we wanted adequate lighting and didn’t want to work in the dark. We have big garage doors with windows. We also have heated floors in the parlor that adds to a high quality work environment for our family and employees.

Looking to the future, we can expand our parlor to a Double-10, should we decide to grow our operation.

E. *Did any barriers, or bottlenecks, occur during the project, and if yes, how did the team overcome those issues?* We had scheduling bottlenecks with our contractors at various times. We were ready for our cows in the new facility, but the lagoon wasn’t ready. We moved our cows thinking we could handle the manure until the lagoon could be completed in the spring. Unfortunately, it wasn’t a good idea, since we couldn’t keep up with the volume of manure.

Actions:

F *How did the work done on a business plan or feasibility study impact the farm’s final decisions?* Our feasibility study showed us how much our debt load would be with the new barn and parlor. We still have that debt load, but are more confident in our decisions moving forward. As you are building, you sometimes think the new barn will solve all your problems. Even with a new barn, it’s still dairy farming and it’s still managing animals.

G. *How long did the project take, start to finish?*

- Planning – 2 years
- Building – 8 – 9 months; we broke ground the end of September and began milking in February, but the builders were still working on the barn.
- Lagoon – started in the fall, stopped, and had to wait on temperature to rise for the lining, so it was not completed until May.

Modernization and Technology...continued

Results:

H. *How did the modernization and new technology change the business as it relates to profitability?* We experienced energy savings and also fertilizer savings with our lagoon. The new barn and parlor also is an attraction for future employees. Many people stop and leave their name and number, wanting to work on our farm now (significant advances in worker environment). Daily manure management is much easier with a skid steer and it's also more enjoyable to milk cows in our new facility.

We are benefiting from programs that reward volume purchases that were unavailable to us when we were milking 60 cows. As an example, we have more options for contracting feed because we own more cows. Instead of 2 -3 artificial insemination companies visiting the farm, we might have 5 – 6 today.

I. *Did the modernization and new technology change management practices on the farm?* Yes. See additional details in the “Animal Care” template discussion. We were always the “do-ers” on the farm, and felt guilty if we took a phone calls, etc. Now, we realize that we need to be managers. In a given day, about 30% of our time is managing and approximately 70% is performing labor around the farm. It took us a few months in the new barn to realize that we needed to be looking at information, not just preforming labor tasks.

J. *Have you learned anything that has influenced future decision making about technology or given you new enthusiasm for some aspect of modernization?* Today, numbers are associated with everything we do on the farm. We almost have a mini feasibility study for every decision, whether it is buying a tractor or trying a new animal health product.

K. *Has the farm shared the new facilities or technology (milking facilities, manure management, etc.) with others in the dairy community? If yes, what was the response from the community?* We hosted an Open House in August 2013. People close to our age said if you can do it, we can do it. Several of those people came back, at a later time, to ask more detailed questions.

There was a little negative feedback, from smaller sized farms. They didn't see a need to expand dairy businesses and even criticized our choice in barn color – blue. We heard comments that it was “too showy.” When you are in the process of trying to transform your business, you can feel lost. It can feel like people are scrutinizing everything you do. We chose to stay in the community, to keep farming and we are still learning. It will take lots of work, but this is how we want to raise our kids.

